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DEPARTMENT OF WATER RESOURCES

(Works Branch)

NOTIFICATION u/s 19(1)

The 21st September, 2018

No.4/1/2017-IW(3)/1322752/1.-Whereas it appears to the Governor of Punjab that land measuring 208K 4.5M (As per detail given below) is likely to be acquired at the public expense for public purpose, namely for continuing the research activities of Hydraulic Research Station, Malikpur, District Pathankot, wherein these are already been carried out since 1925. This land is to be acquired in different chunks of land in Village Malikpur, Hadbast No. 240, Tehsil and Distt. Pathankot. The acquisition of land has been necessitated *vide* Hon'ble Supreme Court order dated 01-12-2014 in SLP 29832/2014.

This notification is made under the provisions of Section-19(1) of the Right to Fair Compensation and Transparency in Land Acquisition Rehabilitation and Resettlement Act 2013 to all whom it may concern and under the provisions of section 3(G) of the said Act, the Land Acquisition Collector -cum- Sub Divisional Magistrate, Pathankot is hereby directed to take orders for the acquisition of the said land.

In the view of urgency of the Acquisition, the Governor of the Punjab in exercise of the powers under section 19(1) of the said Act, is further pleased to direct that the Land Acquisition Collector -cum- Sub Divisional Magistrate, Pathankot shall proceed to take the possession of the land herein specified any waste or arable land in accordance therewith.

Plan of the land may be inspected in the offices of the Land Acquisition Collector-cum- Sub Divisional Magistrate, Pathankot.

SPECIFICATION OF LOCALITY/LAND TO BE ACQUIRED

S. No.	District	Tehsil	Village of Rev. Estate	Hadbast No.	Khasra No.	Total Area in the Chunk (K-M)	Land to be Acquired (K-M)	Part of the Chunk to be acquired
	Pathankot	Pathankot	Malikpur	240				
1.					15R-9	8-0		

(13043)

		15R-2/2	5-11	
		Total	13-11	11-5.5 About 451/542th part
2.		26R-13/2	7-2	
		18	8-0	
		19	4-0	
		22	7-2	
		23	8-0	
		24/2	2-18	
		31R-2	9-11	
		9/1	5-19	
		6/2	4-8	
		7	8-0	
		8	8-0	
		13	7-4	
		14	9-10	
		3	8-0	
		Total	97-14	72-08 About 724/977th part
3.	-	15R-10	8-0	
		11	8-0	
		12	8-0	
		19/2	4-0	
		20	8-0	
		Total	36-0	8-06 About 83/360th part
4		12R-16	7-15	
		17	8-0	
		18	8-0	
		19	8-0	
		21	3-12	
		22	8-0	
		15R-1/1	2-8	
		2/1	2-9	
		Total	48-4	48-04 Full

5	26R-6	8-0		
	15/1,15/2	8-0		
	16	8-0		
	27R-9/2	3-12		
	10	8-0		
	11	8-6		
	20/2	5-2		
	21/1	2-2		
	Total	51-02	51-02	Full
6	26R-14	8-0		
	17	8-0		
	24/1	3-0		
	46R-6/3	1-7		
	Total	20-07	10-02	About 223/450th part
7	12R-6/3	4-14		
	14/2	3-16		
	15	8-0		
	13R-11/1	4-11		
	Total	21-01	3-09	About 69/421th part
8	12R-23	8-0		
	24	8-0		
	25/1	4-14		
	Total	20-14	3-08	About 71/432th part
Grand Total		308-13	208-4.5	

Chandigarh
The 20th September, 2018

Sd/-
(JASPAL SINGH)
Principal Secretary to Government of Punjab
Department of Water Resources

DEPARTMENT OF GOVERNANCE REFORMS AND PUBLIC GRIEVANCES
(GOVERNANCE REFORMS-2 BRANCH)

NOTIFICATION

(Replacing Notification No. 1/13/12-1GR2/1107142/1 Dated 17 November, 2017)

The 18th September, 2018

No.1/13/2012-1GR2/169.-The Governor of Punjab is pleased to recast the Punjab Governance Reforms

and Ethics Commission(PGREC) as per the following:-

1. Preamble

In the context of changing paradigm of governance and delivery of services by governments and accelerated pace of digitization and its cost-effective applicability in various facets, Punjab Governance Reforms and Ethics Commission (PGREC) is being reconstituted with the following aims and objectives:-

- I. To suggest new measures that promote proactive, responsive, accountable, efficient and effective governance at all levels of the State Government and its institutions;
- II. To make suggestions to accelerate economic development of the State;
- III. To recommend measures that strengthen social justice for the under privileged and vulnerable sections of the State;
- IV. To recommend technologies and areas where E-governance and digitization can enhance delivery and accountability in governance or achieve cost-effectiveness;
- V. To suggest measures for making the citizens of the State as the primary focus of Government's attention in the true spirit of participative democracy; and
- VI. To promote integrity and ethics in governance and suggest measures that will help in strengthening a transparent and open system of governance minimizing undesirable practices.

2. Constitution of the Commission

- 2.1 The Commission shall comprise a Chairman and three members.
- 2.2 The Chairman shall be a retired officer from civil services, with not less than 35 years of total experience, of which not less than 25 years should be in government, Central or State. He should have a reformist mind-set and deep understanding of the changing paradigm of administration and governance in general and governments in particular. In view of the emphasis on improving financial discipline, he should also have sufficient exposure to financial administration and public finance.
- 2.3 The Commission shall have three members (part time and in addition to their existing responsibilities) as follows:
 - a. Additional Chief Secretary/ Administrative Secretary (Governance Reforms);
 - b. Additional Chief Secretary/ Administrative Secretary (Finance); and
 - c. Additional Chief Secretary/ Administrative Secretary (Information technology).
- 2.4 The Chairman shall enjoy the rank and pay scale of a Cabinet Minister of the State.
- 2.5 The Additional Chief Secretary/ Administrative Secretary of the concerned Administrative Department shall be co-opted as member in respect of matters concerning that Department.
- 2.6 The Commission may engage experts/consultants for a specific purpose & for a specified time period, as required. These members can be individual or institutional.
- 2.7 The Commission may also interact with national and international bodies with relevant specialization and seek their inputs on any area of reform.
- 2.8 The Commission may also seek any financial assistance from Corporates/NGOs (national or international) to fund any independent studies in any sphere of its study. However the same shall be subject to compliance with all the relevant laws.

- 2.9 The Commission shall have a Member Secretary in the rank of the Secretary to Government of Punjab.

3. Tenure

- 3.1 The tenure of the Commission shall be 5 years w.e.f. 10.04.2017.

4. Terms of Reference of the Commission

- 4.1 Without prejudice to the generalities of the terms of reference of the Commission, as contained in the Preamble, the Commission shall examine the following specific aspects of governance and make recommendations thereof for consideration and decision by the Government:

- I. Design a framework of empowerment and accountability at different levels of governance and capacity building;
- II. Fiscal consolidation, including fiscal prudence, additional resources mobilization and improved tax compliance;
- III. Broad framework for private-public partnership as a model for bringing investment in key sectors;
- IV. Improving the quality of public expenditure and outcomes;
- V. Recommend measures for cost cutting or to boost non-tax revenues of Departments;
- VI. Primary/ secondary health care and nutrition;
- VII. School, college and other education with emphasis to prepare the youth for the challenges of new economy and improve employment potential;
- VIII. Social security and welfare with particular emphasis on vulnerable sections;
- IX. Measures for accelerating infrastructure and rural development;
- X. Ensuring transparency, accountability and delivery of public services to the citizens in a corruption free manner;
- XI. Give recommendations on all proposals received from the Departments/Boards/Corporations of projects more than Rs.50 Crore;
- XII. Such other matters as may be referred to it by the Cabinet sub-committee as mentioned at para 6.1.

5. Conduct of Business of the Commission

- 5.1. The Commission may devise its own procedure for conduct of its business.
- 5.2. The Commission may call Administrative Secretary and /or other functionaries of the Department and seek data, information, comments or inputs as may be necessary for its work. The respective department will extend its full support and co-operation to the Commission and furnish required details with a sense of urgency and involvement.
- 5.3. The Commission may constitute groups/task forces on any specific aspects of its work.

6. Cabinet Committee on Governance Reforms

- 6.1. A Cabinet Sub- Committee of Governance Reforms headed by Chief Minister with Finance Minister, Minister - In- charge (Department of Governance Reforms) and Minister- In- charge of the concerned administrative department as members, shall be constituted. Chief Secretary

shall be the member secretary of the Committee and Chairman PGREC shall be a special invitee.

- 6.2. The Department of Governance of Reforms shall seek approval of Council of Ministers (CMM) for the constitution of Cabinet Sub-Committee.
- 6.3. The recommendations of the Commission shall be presented from time-to- time to the above mentioned Cabinet Sub-Committee where the concerned Administrative Department(s) may also be represented.
- 6.4. The Cabinet Sub-Committee, as mentioned in para 6.1, shall be empowered to take a final decision on the recommendations of the Commission. The Committee in its discretion may remit the matter to the Council of Ministers (CMM) for wider consultations and final decision and/or may direct the Administrative Department to prepare a detailed blue print for the way forward, including the time line for implementing the recommendations.
- 6.5. Department of Governance Reforms (DoGR) shall put up the status of implementation of the decisions on the quarterly basis through Chief Secretary cum Member Secretary to the Cabinet Sub-Committee as mentioned in para 6.1 who will also guide the implementation of the recommendations.

7. Secretariat and Budgetary Support

- 7.1 The Department of Governance Reforms will provide the necessary secretariat, budgetary and other support to the Commission.

Chandigarh

The 18th September, 2018

NIRMALJEET SINGH KALSI, IAS

Additional Chief Secretary, Govt. of Punjab

Department of Governance Reforms and Public Grievances

DEPARTMENT OF RURAL DEVELOPMENT AND PANCHAYATS

NOTIFICATION

The 29th August, 2018

No.13/73/17/G-3:1048.- The Department of Rural Development and Panchayats Punjab intends to achieve the goal of Scientific Solid Waste Management in the Village Panchayats of Census town of the state in a time bound manner. For this purpose, Department of Rural Development and Panchayats adopts for the Panchayats of the census towns, the Punjab State Solid Waste Management Policy notified by the Department of Local Government *vide* No. 5/70/2018-1LG-4/1644 dated 9th July, 2018 with the following changes :-

1. The words, "74th amendment of Constitution of India", may be read as the words, "73th amendment of Constitution of India"
2. The words, "12th schedule of the Constitution" may be read as the words, "11th schedule of the Constitution".
3. The words, "Urban local bodies (ULBs)", may be read as the words, "Village Panchayats of Census town".
4. Serial no. 4 shall not be applicable to "Village Panchayats of Census town".
5. In Serial No. 5.16, the words, "The Punjab Municipal Infrastructure Development Company (PMIDC)", may be read as the words, "Chief Engineer Panchayati Raj in the Department of Rural Development and

Panchayats". The words, "Mission Directorate of Swachh Bharat Mission-Urban", "may be read as the words, "Mission Directorate of Swachh Bharat Mission-Rural for Village Panchayats of Census town under rule 15 of Solid Waste Management Rules 2016".

6. The changes made from time to time in the Policy framed by the Department of the Local Government may be considered by the Department of Rural Development and Panchayats.

Sd/-

ANURAG VERMA

Financial Commissioner & Secretary to Govt. of Punjab.
Department of Rural Development & Panchayats

DEPARTMENT OF RURAL DEVELOPMENT AND PANCHAYATS

NOTIFICATION

The 9th July, 2018

Notification No.5/70/2018-1LG-4:1644.-The Department of Rural Development and Panchayats, Punjab intends to achieve the goal of scientific Solid Waste Management in time bound manner. The Department has notified the "**Punjab State Rural Solid Waste Management Policy**" under rule-15 of Solid Waste Management Rules, 2016 notified by Ministry of Environment Forest and Climate Change, New Delhi. **The Punjab State Rural Solid Waste Management Policy** will be applicable for all Gram Panchayats and waste generators in the State of Punjab from the date of this notification as under:

1. Background: The scientific solid waste management (SWM) assumes importance with the increasing urban population, changing living styles and its importance in general life for good health. Considering its importance, Ministry of Environment and Forests and Climate Change (MoEF&CC) has notified the Solid Waste Management Rules, 2016 vide notification No. S.O.1357(E) dated 8th April, 2016 in supersession of Municipal Solid Waste (management & handling) Rules, 2000. In conformity with Rule 15 of Solid Waste Management Rules, 2016, "**Punjab State Rural Solid Waste Management Policy 2018**" is being notified to ensure scientific and systematic management of solid waste in all Gram Panchayats in the State.

Solid waste management has taken a central position in the government's policy to provide clean and healthy environment. The effective solid waste management plan for a city includes proper source segregation of waste into different streams, robust collection and transportation mechanism and subsequently scientific processing and disposal as per SWM rules, 2016 as amended from time to time and best practices available. With the notification of Solid Waste Management Rules 2016, there is greater accountability of waste generator and the focus has shifted from mere collection and transportation of solid waste to mandatory source segregation, preferably decentralized low cost scientific processing and safe disposal of solid waste. The SWM Rules 2016 focuses on the principal of 3Rs (reduce, re-use and re-cycle), source segregation and appropriate processing/management of biodegradable and non-biodegradable closest to point of generation to reduce the financial burden on the PRI's and natural resources and elimination of environmental degradation.

With the 73rd amendment of the Constitution of India in 1992, Panchayati Raj Institutions (PRI's) in the country have been recognized as the third tier of Government. The 12th schedule of the Constitution has laid down the functions envisaged to be performed by the ULBs and scientific and systematic solid waste management (SWM) as per prescribed SWM Rules, 2016 is one of them.

There has been quantum increase in generation of solid waste and its quality with rapid urbanization and changing lifestyles and food habits. Simultaneously its mismanagement has been posing the serious health hazards and irreparable damage to environment and soil fertility. In relation to this, a public interest litigation (PIL) was filed in the Hon'ble Apex Court of India in 1996 and Hon'ble Court has directed the ULBs as well as the Government of India and State Governments to improve SWM practices. Subsequent to this order, the Barman Committee was appointed to evaluate all aspects of SWM. On the basis of a report submitted by Barman Committee in March 1999, Solid Waste Management (SWM) Rules, 2016 (also referred to as the "Rules") were notified by the Central Government in exercise of its powers under the Environment (protection) Act, 1986. The rules have substantially incorporated the recommendations made by the Committee and attempts to delineate responsibilities and bestow specific duties on the citizens as well as the ULBs/PRI's for scientific and systematic SWM in time bound manner.

Scientific and systematic SWM is one of the key components of Swachh Bharat Mission-Urban also and Mission mandates to achieve the goal of garbage free cities on 150th birth anniversary of Mahatma Gandhi i.e. 2nd October, 2019. PRI's have overall responsibility for SWM in the Rural Areas, however; most of them are unable to provide requisite SWM system to tackle the current situation. Various studies revealed that out of total budget allocated for SWM, scant amount is being spent for scientific processing of waste and most of the fund is utilized on waste collection and transportation only (Rana, et al., 2015). About 80-95% of total SWM budget spent on collection and transportation activities being carried out through their own arrangements or private agencies. Huge expenditure on collection and transportation activities affecting the other key components such as scientific processing and safe disposal (Singh, et al., 2007; Nema, 2004).

On the contrary, scientific treatment and its safe disposal is an underinvested area and open dumping in low lying areas or dump sites or in water bodies and open burning are common waste disposal practices across cities and towns. This unscientific disposal of solid waste is causing serious health hazards through ground/surface water pollution, air pollution, soil contamination and vector born diseases. The challenges of SWM range from lack of ownership of implementing agencies and citizen, poor involvement of community, low level of awareness among the stakeholders, lack of dedicated manpower qualified in environment & solid waste management subject, insufficient budget allocation and land for SWM disposal.

2. VISION

"Attaining and sustaining Clean-Green Punjab by adopting the 6Rs waste management principal (refuse, reduce, reuse, recycle, redesign and research), implementing the environment friendly, financially viable, socially acceptable and easy to operate & maintain solid waste management technologies/mechanism with 100% door to door collection of segregated waste & transportation in the segregated manner and scientific processing at closest to point of generation and reclamation of landfill sites integrating the informal sector of rag pickers and community participation".

3. SOLID WASTE MANAGEMENT RULES (SWM), 2016

The Solid Waste Management Rules, 2016 issued by the Ministry of Environment and Forests and Climate Change, Government of India, under the Environment (Protection) Act, 1986, prescribe the manner in which the Authorities have to undertake source segregation, collection & transportation in similar manner, scientific and systematic processing closet to point of waste generation and safe disposal of solid waste within their jurisdiction under their respective governing legislation. Though the SWM Rules, 2016 make the ULBs responsible for management of wastes, ULBs have to management their waste at their own level or engagement of private partners, NGOs, CBOs etc. ensuring scientific and systematic SWM focusing on 100% source

segregation, door to door collection in similar manner, composting or biogas from organic wastes and maximum recovery of commercially recyclables and refuse derived fuel (RDF) from commercially non recyclables and safe disposal of inerts ensuring no environmental and health hazards.

In this context, there is need to revisit, develop, and implement appropriate strategy framework to guide the urban local bodies for scientific and systematic processing and safe disposal of solid waste in order to comply with the SWM Rules, 2016. The framework will guide and support the urban local bodies for managing the solid waste scientifically, cost effectively, in decentralized manner and city level centralized or mixed approaches.

3.1 Composition of solid waste: Solid waste comprises of **i). bio-degradable** waste [means any organic material that can be degraded by micro-organisms into simpler stable compounds -3(4) SWM Rules, 2016] and **ii) non-biodegradable** waste [means any waste that cannot be degraded by micro organisms into simpler stable compounds -3(32) SWM Rules, 2016].

3.2 Solid waste management comprises of i) source segregation, ii) door to door collection and transportation in similar manner (segregated form), iii) scientific processing (bio-degradable) for production of compost and bio-gas, iv) resource recovery/ recycling (non-biodegradable - commercially recyclables), v) RDF production (non-biodegradable - commercially non-recyclables) and vi) safe disposal (inerts – chulah ash, fine earth etc.) following **waste hierarchy** [means the priority order in which the solid waste is to should be managed by giving emphasis to prevention, reduction, reuse, recycling, recovery and disposal, with prevention being the most preferred option and the disposal at the landfill being the least [3(57) SWM Rules, 2016].



3.3 Solid waste management approach: Preference shall be given to decentralized processing to minimize transportation cost and environmental impacts such as - bio-methanation, microbial composting, vermi-composting, anaerobic digestion or any other appropriate processing for bio-stabilisation of biodegradable wastes [15(v) SWM Rules, 2016].

3.4 Key principals of solid waste management: 100% source segregation of solid waste is mandatory [means sorting and separate storage of various components of solid waste namely biodegradable wastes including agriculture and dairy waste, non biodegradable wastes including recyclable waste, non- recyclable combustible waste, sanitary waste and non recyclable inert waste, domestic hazardous wastes, and construction and demolition wastes [3(44) SWM Rules, 2016].

Waste segregation at source is a necessary first step for use of all technologies (available) for waste management across the world (Centre for Science -CSE, 2016). Land filling of i) biodegradable waste or garden waste (composted preferably) and ii) dry recyclables (recycled preferably); is not allowed in the MSW (CPHEEO, 2016) and waste to be managed as per waste management hierarchy.



3.5 Bio-degradable (compostable) wastes: “biodegradable waste” means any organic material that can

be degraded by micro-organisms into simpler stable compounds/ compost [3(4) SWM Rules, 2016]. Preference shall be given to decentralized processing to minimize transportation cost and environmental impacts such as bio-methanation, microbial composting, vermicomposting, anaerobic digestion or any other appropriate processing for bio-stabilization of biodegradable/ organic wastes [15(v) SWM Rules, 2016]. Organic waste may be composted aerobically or used for generating energy through anaerobic decomposition processes (CPHEEO, 2016). Bio-degradable waste management will be consisting of following key steps: i. Source segregation [means sorting and separate storage of biodegradable wastes]. ii. Processing [decentralized processing - means establishment of dispersed facilities for maximizing the processing of bio- degradable waste and recovery of recyclables closest to the source of generation so as to minimize transportation of waste for processing or disposal -3(15) SWM Rules, 2016] and centralized processing unit. iii. Processing technologies - Composting a) Aerobic composting - means a controlled process involving microbial decomposition of organic matter in the presence of oxygen, b) Anaerobic digestion - means a controlled process involving microbial decomposition of organic matter in absence of oxygen - 3(1 & 2) SWM Rules, 2016] and c) Bio-methanation - means a process which entails enzymatic decomposition of the organic matter by microbial action to produce methane rich biogas [3(5) SWM Rules, 2016].

3.6 Commercially recyclables: “materials recovery facility” (MRF) means a facility where non-compostable solid waste can be temporarily stored by the local body or any other entity mentioned in rule 2 or any person or agency authorised by any of them to facilitate segregation, sorting [means separating various components and categories of recyclables such as paper, plastic, card- boards, metal, glass, etc., from mixed waste as may be appropriate to facilitate recycling - 3(47) SWM Rules, 2016]) and recovery of recyclables from various components of waste by authorised informal sector of waste pickers, informal recyclers or any other work force engaged by the local body or entity mentioned in rule 2 for the purpose before the waste is delivered or taken up for its processing or disposal [3(31) SWM Rules, 2016]. The first preference should always be given to segregating recyclables for further reuse or recycling (CPHEEO, 2016).

3.7 Commercially non- recyclables: "refused derived fuel"(RDF) means fuel derived from combustible waste fraction of solid waste like plastic, wood, pulp or organic waste, other than chlorinated materials, in the form of pellets or fluff produced by drying, shredding, dehydrating and compacting of solid waste [3(38) SWM Rules, 2016].

3.8 Inerts (fine earth and road sweep silt): safe disposal of inert waste (fine earth, house ash, road sweep silt etc. and C&D waste as per C&D Rules, 2016) in landfill as per SWM Rules, 2016.

4. PRESENT STATUS

There are currently 167 ULBs in Punjab state with a population of about 98 lakh (Census 2011), which generates approximately 4100 tons per day solid waste. Besides these, there are a large number of defence, paramilitary and police establishments. In 2014, Punjab prepared the cluster approach by which 10-25 ULBs were clubbed to form SWM cluster and all ULBs were divided in eight clusters i.e. Amritsar, Bathinda, Ferozpur, Jalandhar, Ludhiana, Mohali, Pathankot, and Patiala. Initially, cluster approach was induced for Bathinda cluster on pilot basis on PPP mode. The cluster approach concept was developed to outsource collection, transportation, processing and disposal services to private partners. However, the cluster approach has shown much less than desired results resulting in legal obstructions with project proponents itself, protests from public due to the huge amount of waste of cluster ULBs transported to one centralized location, high transportation cost, and non availability of huge land chunks.

Recently notified SWM Rules, 2016 and ‘Star Rating of Garbage Free Cities’ protocol provided the

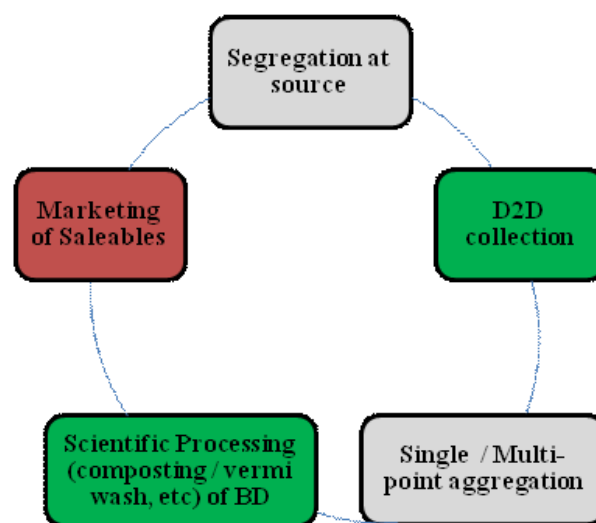
scientific SWM through emphasis on on-site or decentralized processing focusing on 100% source segregation, door to door collection in similar manner, composting or biogas from organic wastes with maximum recovery of commercially recyclables and refuse derived fuel (RDF) from commercially non recyclables and safe disposal of inerts ensuring no environmental and health hazards. The protocol for Star Rating of Garbage Free cities provides for elaborate grievance redressal and stakeholders feedback mechanism.

The Department of Local Government, Punjab through its implementation agency PMIDC has initiated low cost and easy to operate – maintainable decentralized or on-site scientific waste management approach focusing on 100% source segregation as per SWM Rules, 2016 and ‘Star Rating of Garbage Free Cities’ protocol. Various initiatives have been taken to bring the effectiveness in municipal solid waste management through stakeholders’ involvement by way of interpersonal communication for community mobilization and handholding support to various stakeholders for sustained behaviour change. With this approach, decentralized composting has started at varying scale in the ULBs across the State. Institutions, schools, religious organization are also have been covered for management of their own park/ garden/ horticulture waste (green waste) and city parks have also been covered under the decentralized approach.

5. APPROACH FOR SOLID WASTE MANAGEMENT

Keeping in view the past experience as well as new initiatives taken by the department, it has been decided to adopt both decentralized and centralized Solid Waste Management approach depending upon the profile of the locality in terms of availability of land for processing waste, composition of waste, market linkages, health risks and extent of in formalization of the waste management system.

Centralized models which essentially consist of processing of all the waste at a centralized location may be suitable for large sized ULBs where significant economies of scale are possible and the composition of waste allows for greater extraction of value from the waste through feasible technological solutions. Health hazards due to inefficient waste disposal and no availability of land in close proximity of localities are other two important factors to be considered while choosing a centralized waste management system for city.



Decentralized model involves management of municipal waste by various small waste management centers closest to waste generation points within the locality. This allows PPPs at the unit level where micro-entrepreneurs/ NGOs/ SHGs/ CBOs can work with the ULBs to produce compost or other value added products from the waste and the ULBs either on its own or through a bigger private partner manages the collection of refuse and bio-mining/ reclamation/ maintenance of existing landfill sites. Decentralized mechanism of door to door collection and processing of waste avoids the unnecessary transportation cost of wastes too far off processing/ dumping sites and support the sustainable environment sanitation.

State shall work for attaining and sustaining the scientific solid waste management adopting the systematic decentralized approach focusing on 6Rs principal i.e. refuse, reduce, reuse, recycle, redesign and research (Kumar, et al., 2018), i) waste reduction at source by discouraging the non-biodegradable materials like plastic

bags, plastic & thermocol disposal items and flex banners etc. having one time use ii) 100% source segregation i.e. biodegradables (wet waste), non biodegradable (dry waste) and domestic hazardous waste, iii) proficient transportation of segregated waste, iv) composting/ biogas and maximum material recovery closest to its generation (on-site and decentralized manner), v) reclamation/ bio-mining of existing waste dump sites, vi) integration of rag pickers, bulk waste generators and institutions (religious, educational, defense/ paramilitary/ police/ sports establishments), and vii) community awareness and imparting the compulsory environment education in all classes/ grades focusing on scientific waste management mechanism and active involvement of community from planning to execution phase.

The technology for scientific solid waste management will be prioritized as under:

Bio-degradable waste

- a. Composting (Aerobic compost/ vermi-compost) or
- b. Bio-methanation/ Bio-gas or
- c. Any other advance environment friendly technologies

Non-biodegradable waste

- a. Adoption of 4Rs (refuse, reduce, re-use and recycle) principal or
- b. Refused Derived Fuel (RDF) or
- c. Any other advance environment friendly technologies.

5.1 Segregation of waste at source: To ensure scientific processing/ proper material recovery from solid waste, it will be mandatory for all to keep and supply the segregated waste in atleast three forms i) biodegradable waste (wet), ii) non-biodegradable waste (dry) and iii) domestic hazardous.

5.2 Door to door collection: 100% door to door collection of segregated waste from the door step of the waste generators (if not feasible on-site processing/ management) will be achieved at the cost of prescribed service charges for the same.

5.3 Single/ multi point aggregation: City solid waste management plan will be prepared with an aim to eliminate the waste secondary points and to achieve the bin less city.

5.4 Scientific processing: Solid waste shall be processed scientifically in an eco-friendly and economically sustainable manner. ULBs adopt either decentralized or centralized Solid Waste Management approach depending upon the profile of the locality in terms of availability of land for processing waste, composition of waste, market linkages, health risks and extent of in formalization of the waste management system

5.5 Bulk waste generators: The bulk waste generators will be made responsible for on-site waste management at their own as per SWM Rules, 2016 or time to time guidelines/ instructions of respective ULB/ State in this regard.

5.6 Promotion of home composting and kitchen gardening: To create ownership among the community toward waste management and environment and health improvement, home composting and kitchen gardening will be promoted.

5.7 Management of park/ garden/ horticulture waste: On-site aerobic composting will be done mandatorily in all parks, gardens, kitchen gardens, education/research/ training institutions, defence/ paramilitary/ police establishments, sport complexes for the management of their green waste (leaves/ grass/ fruits/ vegetables flowers) or any site where green waste is generated in routine.

5.8 Marketing of compost and recyclables: For getting the higher monetarily value of the compost/ biogas produced from organic waste and recovered materials (commercially recyclables and RDF from commercially non-recyclables), proper marketing will be done to ensure active involvement/ participation of farmers/ plant nurseries/ gardeners/ junk dealers for the same. Since Punjab an agriculture State and facing severe environmental and health problems due to quantum usage of fertilizers and pesticides in past. Usage of high quality compost produced from organic waste (segregated at source) will be promoted to mitigate the connected health problems.

5.9 Integration of rag pickers and community based organization: To empower the rag pickers, they will be integrated in SWM main stream. The community based organizations will also be involved for achieving the systematic SWM.

5.10 Service charges and spot fine: To sustain the project and to create the ownership among waste generators, the prescribed service charges for door to door collection of waste will be mandatorily collected from them (waste generators). The prescribed spot fine will be imposed on the violators.

5.11 Prohibition burning of waste: In compliance with SWM Rules, 2016 and orders of Hon'ble NGT time to time, burning of solid waste by any person including officials/ institutions etc. is prohibited and punitive action will be taken under law.

5.12 Prohibition of one time use plastic/ thermocol items: In line of theme "Beat the Plastic Pollution" of World Environment Day, 2018 (5th June), usage of plastic bags, water bottles/ plastic/thermocol disposal items/ flex banners having one time use shall be discouraged. Usage of cloth/ jute/ paper bags and re-usable utensils will be promoted to achieve the goal of Swachh Bharat Mission.

5.13 Education strategy for sustained behaviour change and public participation: In conformity with education strategy recommended by Sub-Group of Chief Ministers, NITY Aayog and orders dated 22-11-1991 of Hon'ble Apex Court in CWP 860/1991, compulsory environment education having scientific solid waste management (source segregation, composting and maximum material recovery in decentralized manner), sanitation & hygiene and clean green & pollution free environment will be imparted through subject experts in each grade/ class of all under graduate and post graduate courses to achieve goal of "Clean-Green-Pollution Free and Open Defecation Free Punjab". Since scientific education is the only key tool for sustained behaviour change, the compulsory environment education will attain and sustain the clean-green environment.

5.14 Strengthening the capacity of ULBs: State Government will guide ULBs to adopt Punjab model byelaws/ legislations to facilitate levying user charges, penalties for violators and explore revenue options like revenues from sale of waste and by products, sanitation cess, processing fee etc. to achieve financial sustainability. State government will help ULBs in creating market linkages for the byproducts like compost and other recyclables. Creation of market avenues through involvement of the Department of Agriculture, Horticulture, Forests and Fertilizer companies as well as other agencies in the farm sector to ensure effective marketing of the compost as well as its by-products. Formulate and implement State and ULB level capacity building programs for the field staff, supervisory staff, civil society organizations on SWM topics based on operations, compliance of rules/ regulations and complaint redressal & monitoring systems, behavior change trigger tools and exposure visits.

5.15 Safety measures: ULBs to provide adequate protection and health care facilities to its workers. The local body, as a policy, should provide adequate protective equipments and health check up from time to time to ensure that health of staff is not adversely affected on account of their handling of solid waste. Free medical services and insurance to be made available to those whose health is affected on account of handling solid

waste as per GoI instructions [DO No.L.19017/69/2017-NUHM dated 17.01.2018 of Ms. Preeti Pant, Joint Secretary, Ministry of Health & Family Welfare].

5.16 Institutional arrangements: The adequate institutional arrangements will be made for achieving the sustainable solid waste management activities focusing on 100% source segregation, maximum materials recovery, scientific processing (composting/bio-gas) and reclamation of existing dump sites as per SWM Rules, 2016 and Star Rating protocol. The Punjab Municipal Infrastructure Development Company (PMIDC) is the Nodal Agency to carry out the Solid Waste Management in the State and the Mission Directorate of Swachh Bharat Mission-Urban. Therefore the purposes of creating and having a dedicated authority for SWM has already been achieved in the functioning of PMIDC. There is lack of dedicated/ qualified professionals in the ULBs for implementation of waste management. Efforts shall be made to deploy sufficient environment/ SWM qualified/ trained manpower including that for IEC & Capacity building to achieve the objectives of this policy.

5.17 Time frame for scientific SWM implementation: Necessary infrastructure for implementation of SWM rules, 2016 shall be created by the local bodies and other concerned authorities, as the case may be, on their own, by directly or engaging agencies within the time frame specified below:

Sl. No.	Activity	*Time limit w.e.f. 1st July, 2017
1	Identification of suitable sites for setting up solid waste processing facilities	1 year
2	identification of suitable sites for setting up common regional sanitary landfill facilities for suitable clusters of local authorities under 0.5 million population and for setting up common regional sanitary landfill facilities or stand alone sanitary landfill facilities by all local authorities having a population of 0.5 million or more .	1 year
3	procurement of suitable sites for setting up solid waste processing facility and sanitary landfill facilities	2 years
4	enforcing waste generators to practice segregation of bio degradable, recyclable, combustible, sanitary waste domestic hazardous and inert solid wastes at source,	2 years
5	ensure door to door collection of segregated waste and its transportation in covered vehicles to processing or disposal facilities.	2 years
6	ensure separate storage, collection and transportation of construction and demolition wastes	2 years
7	setting up solid waste processing facilities by all local bodies having 100000 or more population	2 years
8	setting up solid waste processing facilities by local bodies and census towns below 100000 population.	3 years
9	setting up common or stand alone sanitary landfills by or for all local bodies having 0.5 million or more population for the disposal of only such residual wastes from the processing facilities as well as untreatable inert wastes as permitted under the rules	3 years
10	setting up common or regional sanitary landfills by all local bodies and census towns under 0.5 million population for the disposal of permitted waste under the rules	3 years

11	bio-remediation or capping of old and abandoned dump sites	5years
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*Time line has been extend and will be applicable w.e.f. 1st July, 2017 as per judgment dated 22-12-2016 of National Green Tribunal in OA No.199/2014 titled as Almitra H Patel & Ors Vs Union of India and Anrs.

Chandigarh
The 6th July, 2018

A. VENU PRASAD, IAS
Principal Secretary to Govt. of Punjab
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